

## US Army Engineer Research and Development Center (ERDC): Hydraulic Engineering Information Analysis Center (HEIAC)

**Description:** The US Army Corps of Engineers (USACE), Engineer Research and Development Center (ERDC), Coastal and Hydraulics Laboratory (CHL), Hydraulic Engineering Information Analysis Center (HEIAC), Vicksburg, MS, provides quick referrals to, and establishes contact with, leading authorities in various areas of technical expertise in hydraulic engineering. HEIAC is utilized by a diverse clientele including government and private industry researchers, engineers, program managers, students, and others interested in the broad field of hydraulic engineering and science.

**Capabilities:** HEIAC is supported by ERDC CHL's multidisciplinary technical staff of engineers, scientists, equipment specialists, and other technical personnel who establish and maintain historical, technical, scientific, and other information collected throughout the world that is pertinent to hydraulic engineering. Expertise is offered in areas of estuaries, hydraulic structures, openchannel flow and sedimentation, dredging research, navigation channel design, operations and management techniques, computer-aided engineering and modeling,



hydrologic research, and hydraulic Geographic Information Systems (GIS) database development. HEIAC provides (a) biographic inquiry services through which authoritative reports are searched, (b) referral services that provide consultation with world-recognized technical experts, (c) technical inquiry services where expert and authoritative advice is given in response to technical questions, and (d) basic services such as providing quick e-mail or telephone responses.

Supporting Technology: HEIAC has access to the entire ERDC Research Library that is accessed through the CHL web site <a href="http://chl.erdc.usace.army.mil">http://chl.erdc.usace.army.mil</a>, for making referrals and answering requests. At this web site click on "ERDC Library"; then on the next screen click on "ERDC Library" again; then click on "Library Catalog & ERDC Publications". This provides the "ERDC LIBRARY" screen containing three searchable entries pertaining to particular documents. At this web site location there is



access to the full compliment of all on-line ERDC publications (including CHL), such as CHL Technical Reports (TRS), and Coastal and Hydraulics Engineering Technical Notes (CHETNs). These documents cover subject matter within the entire range of hydraulic engineering and science. Additionally, HEIAC provides access to computer programs used in hydraulic engineering, planning, and design, including (a) Hydrologic Engineering Center-River Analysis System (HEC-RAS); (b) ADaptive Hydraulics (ADH); (c) Curvilinear Hydraulics 3-D SEDiment (CH3DSED); (d) Sediment Impact Analysis Model (SIAM); and (e) Gridded Surface-



Subsurface Hydrologic Analysis (GSSHA). HEIAC also takes advantage of the ERDC Information Technology Laboratory (ITL) Major Shared Resource Center (MSRC) that offers its users (a) the latest in high-performance computing (HPC) capabilities, (b) state-of-the-art in scientific visualization, and (c) training in HPC skills.

**Benefits:** HEIAC assists customers in basic research efforts by directing then to necessary data and information. It improves the productivity of researchers, engineers, program managers, and others interested in hydraulic engineering by collecting disseminating scientific and technical information in specialized fields of subject areas.

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